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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.:	R13-3035A
Plant ID No.:	095-00021
Applicant:	Triad Hunter, LLC
Facility Name:	Spencer Well Pad
Location:	Tyler County
NAICS Code:	486210
Application Type:	Modification
Received Date:	September 12, 2013
Engineer Assigned:	Steven R. Pursley, PE
Fee Amount:	$3,500
Date Received:	September 16, 2013
Date Resubmitted:	July 31, 2014
Complete Date:	July 31, 2014
Due Date:	October 29, 2014
Applicant Ad Date:	September 18, 2013
Newspaper:	*Wetzel Chronicle*
UTM's:	Easting: 528.757 km Northing: 4,376.709 km Zone: 17
Description:	Modification for the installation of two additional condensate tanks, a vapor combuster and four additional line heaters.

DESCRIPTION OF PROCESS

Natural gas and produced fluids (condensate and water) are received from the wells located on this pad at approximately 900-1,000 psi. These materials then pass through a separator where gas and produced fluids are separated. The gas is routed directly to one (1) of two (2) main compression units and then to a triethylene glycol (TEG) dehydration unit where the water vapor content in the gas flow is reduced to required concentrations. Upon completion of dehydration, the gas is discharged to a gathering line owned and operated by others. Triad is anticipating an increase in flow of production to this station and has, thus, submitted this permit application.

Produced fluids are currently routed to a series of eight 400 bbl tanks. Condensate is transported via truck to a third party, offsite, for processing. Produced water is transported via truck to a third party disposal facility. In this modification Triad proposes to install two additional 400 bbl tanks.

The tanks that contain condensate are currently equipped with a capture and control for vapors via a vapor recovery unit (VRU) whereby the vapors are compressed and injected into the inlet side of the main compression units with the well head gas. In addition, truck loading takes place with a vapor balance system in place, whereby vapors generated during the loading operation are routed back to the tanks and ultimately captured by the VRU. In this modification, Triad proposes to install a larger VRU.

Additionally, Triad will install control mechanisms to allow a rapid shut down of flow to the tanks, thereby eliminating generation of flash gas any time the VRU is down. The combuster would handle working and breathing losses of fluids in the tanks during the VRU outage.

Four additional 1.2 mmbtu line heaters will also be installed at the adjacent Collins Well pad. Since the heaters are owned and operated by Triad Hunter and are adjacent to the Spencer Well pad, they will be included in this permit.

SITE INSPECTION

A site inspection of the facility was performed by the writer on January 9, 2014. The facility is located just northwest of the town of Middlebourne. To get to the facility take I-77 north to exit 179. Then take State Route 2 north for 32.5 miles. Next, veer right on St. Rt. 18 and follow it for 11.4 miles. Turn right on Wick Road to cross Middle Island Creek. Go 0.1 miles and turn right and follow Bridgeway Road approximately 0.8 miles to a guard shack. From there, veer right and proceed approximately 0.5 miles and the facility is on the left. GPS coordinates taken at the facility were 39° 29' 59" N and 80° 54' 42" W The pictures below were taken at the facility during the site inspection. As can be seen in the first picture, it appears the two proposed tanks have already been erected.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emissions from the modified facility are based on the following:

Emission Unit ID#	Process Equipment	Calculation Methodology
1S	1,380 hp Caterpillar 3516B Compressor Engine equipped with Emit Technologies Oxidation Catalyst	AP-42
2S	1,380 hp Caterpillar 3516B Compressor Engine equipped with Emit Technologies Oxidation Catalyst	AP-42
7S	203 hp Caterpillar 3306 TA Flash Gas Compressor Engine	AP-42
4S	40 mmscfd TEG Dehydration Unit Still Vent equipped with condenser and routing the emissions back to the flame zone of the reboiler	GRI GlyCalc
4S	0.5 MMBtu/hr Reboiler	EPA AP-42 Emission Factors
6S	1.2 MMBTU/hr GPU Burners (6)	EPA AP-42 Emission Factors
Combustor	13.5 mmbtu/hr Combustor and pilot	EPA AP-42 Emission Factors
8S	1.2 MMBTU/hr GPU Burners at Collins Pad (6)	EPA AP-42 Emission Factors
T01-T08 & T14-T15	Ten (10) 400 bbl Condensate Tanks routed to the flash gas compressor	E&P Tanks Emission Software
Truck Loading	Condensate Truck Loading routed to the flash gas compressor	EPA AP-42 Emission Factors

Criteria emissions from the facility will be limited to the following:

	NOx		CO		VOC		SO_x		$PM/PM_{2.5}$	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
1S	1.52	6.66	4.41	19.32	1.22	5.33	0.01	0.03	0.11	0.45
2S	1.52	6.66	4.41	19.32	1.22	5.33	0.01	0.03	0.11	0.45
7S	0.90	3.92	0.90	3.92	0.03	0.12	0.01	0.01	0.04	0.14
4S	0.05	0.20	0.04	0.17	0.94	4.12	0.01	0.01	0.01	0.02
6S	0.71	3.09	0.59	2.60	0.04	0.17	0.01	0.02	0.06	0.23

Combustor	0.87	0.09	4.73	0.91	0.21	0.46	0.01	0.01	0.01	0.01
8S	0.71	3.09	0.59	2.60	0.04	0.17	0.01	0.02	0.06	0.23
truck loading	--	--	--	--	0.29	0.60	--	--	--	--
blowdowns	--	--	--	--	--	0.09	--	--	--	--
Tanks	--	--	--	--	7.63	33.42	--	--	--	--
Fugitive	--	--	--	--	0.32	1.38	--	--	--	--
Total	**6.28**	**23.71**	**15.67**	**48.84**	**11.94**	**51.19**	**0.07**	**0.13**	**0.40**	**1.53**

Note that emissions from the combustor are based on an estimated operating time of 192 hours per year (pilot emissions obviously based on 8,760 hours per year). This is because the combustor will only be used when the flash gas compressor is down. VOC emissions from the tanks are routed through, controlled by, and released from compressor 7S.

Non-criteria emissions from the facility will be limited to the following:

	Formaldehyde		Benzene		Total HAPs	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
1S	0.75	3.28	--	--	0.90	3.91
2S	0.75	3.28	--	--	0.90	3.91
7S	0.06	0.25	0.01	0.01	0.06	0.32
4S	--	--	0.02	0.05	0.25	0.25
6S	0.01	0.01	--	--	0.01	0.01
Tanks	--	--	0.01	0.01	0.32	1.39
8S	0.01	0.01	--	--	0.01	0.01
blowdowns	--	--	--	--	--	--
Total	**1.58**	**6.83**	**0.04**	**0.07**	**2.45**	**9.80**

Emissions currently permitted are as follows:

Pollutant	Maximum Annual Facility Wide Emissions (tons/year)
Nitrogen Oxides	14.46
Carbon Monoxide	39.74
Volatile Organic Compounds	43.44
Total Particulate Matter	0.99
Sulfur Dioxide	0.06
Formaldehyde	6.63
Total HAPs	8.84

Therefore, the total increase in emissions due to this modification will be as follows:

Pollutant	Maximum Annual Facility Wide Emissions Increase (tons/year)
Nitrogen Oxides	9.25
Carbon Monoxide	9.10
Volatile Organic Compounds	7.75
Total Particulate Matter	0.54
Sulfur Dioxide	0.07
Formaldehyde	0.20
Benzene	0.07
Total HAPs	0.96

REGULATORY APPLICABILITY

The following state and federal rules apply to the facility:

STATE RULES:

45CSR2: To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers

The GDU Reboiler has been determined to meet the definition of a "fuel burning unit" under 45CSR2 and is, therefore, subject to the applicable requirements therein. However, pursuant to the exemption given under §45-2-11, as the MDHI of the GDU Reboiler is less than 10 mmBtu/hr, the unit is not subject to sections 4, 5, 6, 8 and 9 of 45CSR2. The only remaining substantive requirement is under Section 3.1 - Visible Emissions Standards.

Pursuant to 45CSR2, Section 3.1, the reboiler is subject to an opacity limit of 10%. Proper maintenance and operation of the reboiler (and the use of natural gas as fuel) should keep the opacity of the unit well below 10% during normal operations.

45CSR6: To Prevent and Control Particulate Air Pollution from Combustion of Refuse

Triad has proposed an enclosed combustor for controlling the working/breathing/flashing emissions produced from the condensate/produced-water storage tanks when the flash gas compressor is out of service.. The vapor combustor meets the definition of an "incinerator" under 45CSR6 and is, therefore, subject to the requirements therein. The substantive requirements applicable to the vapor combustor are discussed below.

45CSR6 Emission Standards for Incinerators - Section 4.1

Section 4.1 limits PM emissions from incinerators to a value determined by the following formula:

Emissions (lb/hr) = F x Incinerator Capacity (tons/hr)

Where, the factor, F, is as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions

Incinerator Capacity	Factor F
A. Less than 15,000 lbs/hr	5.43
B. 15,000 lbs/hr or greater	2.72

Triad calculated potential particulate matter emissions from the unit to be less than 0.01 lbs/hr. Based on information included in the application, the maximum vapor mass sent to the combustor will be 5,161 cubic feet per hour. Conservatively assuming a density of 0.0447 lb/cf (at STP) this gives a mass flow rate of about 231 pounds per hour. Based on the above, the aggregate particulate matter limit of the combustor is 0.63 lbs/hr. As the hourly particulate matter emission rate from the combustor is 0.01 lbs/hr, the unit is in compliance with this emission limit.

45CSR6 Opacity Limits for - Section 4.3, 4.4

Pursuant to Section 4.3, and subject to the exemptions under 4.4, the combustor has a 20% limit on opacity during operation. As the primary constituent in the vapors combusted in the unit shall be clean burning methane/ethane, particulate matter emissions from the combustor are expected to be nominal. Therefore, the vapor combustor should easily meet this requirement.

45CSR10: To Prevent and Control Air Pollution from the Emission of Sulfur Oxides (non-applicability)

45CSR10 has requirements limiting SO_2 emissions from "fuel burning units," limiting in-stack SO_2 concentrations of "manufacturing processes," and limiting H_2S concentrations in process gas streams. The only potential applicability of 45CSR10 to the Spencer well pad is the limitations on fuel burning units. Pursuant to the exemption given under §45-10-10.1, as the MDHI of the Line Heaters - which have been determined to meet the definition of a "fuel burning unit"s under 45CSR10 - are less than 10 mmBtu/hr, the units are not subject to the limitations on fuel burning units under 45CSR10.

45CSR13: Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation

The construction of the Spencer Well Pad has a potential to emit a regulated pollutant in excess of six (6) lbs/hour and ten (10) TPY and, therefore, pursuant to §45-13-2.24, the facility is defined as a "stationary source" under 45CSR13. Pursuant to §45-13-5.1, "[n]o person shall cause, suffer, allow or permit the construction . . . and operation of any stationary source to be commenced without . . . obtaining a permit to construct." Therefore, Triad is required to obtain a permit under 45CSR13 for the construction and operation of the well pad.

As required under §45-13-8.3 ("Notice Level A"), Triad placed a Class I legal advertisement in a "newspaper of general circulation in the area where the source is . . . located." The ad ran on September 18, 2013 in the *Wetzel Chronicle* and the affidavit of publication for this legal advertisement was submitted on September 25, 2013.

45CSR22: Air Quality Management Fee Program

This facility is a minor source and not subject to 45CSR30. Triad is required to keep their Certificate to Operate current.

FEDERAL RULES

40CFR60 Subpart JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE)

The two existing engines are subject to this rule. No changes are proposed to those engines. They are 1,380 hp compressor engines will be subject to the following emission standards:

NOx: 1.0 g/HP-hr (3.04 lb/hr)
CO: 2.0 g/HP-hr (6.08 lb/hr)
VOC: 0.7 g/HP-hr (2.13 lb/hr)

The new proposed 203 hp compressor engine is a 4SRB engine manufactured August 8, 2005. Since it was manufactured before June 12, 2006 it is exempt from this rule.

40CFR60 Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution

EPA published in the Federal Register new source performance standards (NSPS) and air toxics rules for the oil and gas sector on August 16, 2012. 40CFR60 Subpart OOOO establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO2) emissions from affected facilities that commence construction, modification or reconstruction after August 23, 2011. The following affected sources which commence construction, modification or reconstruction after August 23, 2011 are subject to the applicable provisions of this subpart:

a. Each gas well affected facility, which is a single natural gas well.

The gas wells that currently exist at the Spencer Well Pad Station were drilled principally for the production of natural gas and were done so after August 23, 2011. Therefore, these wells would be considered affected facilities under this subpart. The compliance date for these hydraulically fractured wells is October 15, 2012. Triad is required under §60.5410 to submit an initial notification, initial annual report, maintain a log of records for each well completion, and maintain records of location and method of compliance. §60.5420 requires Triad demonstrate continuous compliance by submitting reports and maintaining records for each completion operation.

b. Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals that is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. For the purposes of this

subpart, your centrifugal compressor is considered to have commenced construction on the date the compressor is installed (excluding relocation) at the facility. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

There are no centrifugal compressors at the Spencer Well Pad Station. Therefore, all requirements regarding centrifugal compressors under 40 CFR 60 Subpart OOOO would not apply.

c. Each reciprocating compressor affected facility, which is a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. For the purposes of this subpart, your reciprocating compressor is considered to have commenced construction on the date the compressor is installed (excluding relocation) at the facility. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

There are three (3) reciprocating internal combustion engines located at the Spencer Well Pad Station. These engines will be delivered after the effective date of this rule. However, §60.5365(c) states that a reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart. Therefore, all requirements regarding reciprocating compressors under 40 CFR 60 Subpart OOOO would not apply.

d. Pneumatic Controllers

Pursuant to §60.5365(d)(2), "[f]or the natural gas production segment (between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not including natural gas processing plants), each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 scfh" that is constructed after August 23, 2011 is subject to the applicable provisions of Subpart OOOO. The substantive requirements for pneumatic controllers are given under §60.5390. Triad has indicated in the application, that all existing subject pneumatic controllers will have a bleed rate of less than 6 scfh and will, therefore, be exempt from the requirements. Additionally, Triad has indicated that all new pneumatic controllers will be of an intermittent bleed design. Therefore they will not be subject to the rule.

e. Each storage vessel affected facility, which is a single storage vessel, located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment.

40CFR60 Subpart OOOO defines a storage vessel as a unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provides structural support and is designed to contain an accumulation of liquids or other materials. The following are not considered storage vessels:

"Vessels that are skid-mounted or permanently attached to something that is mobile (such as trucks, railcars, barges or ships), and are intended to be located at a site for less than 180 consecutive days. If the source does not keep or are not able to produce records, as required by §60.5420(c)(5)(iv), showing that the vessel has been located at a site for less than 180 consecutive days, the vessel described herein is considered to be a storage vessel since the original vessel was first located at the site.

Process vessels such as surge control vessels, bottoms receivers or knockout vessels.

Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere."

This rule requires that the permittee determine the VOC emission rate for each storage vessel affected facility utilizing a generally accepted model or calculation methodology within 30 days of startup, and minimize emissions to the extent practicable during the 30 day period using good engineering practices. For each storage vessel affected facility that emits more than 6 tpy of VOC, the permittee must reduce VOC emissions by 95% or greater within 60 days of startup. The compliance date for applicable storage vessels is October 15, 2013.

The storage vessels located at the Spencer Well Pad Station are controlled by VRU and vapor combustor and emit less than 6 tpy of VOC. Therefore, Triad is not required by this section to reduce VOC emissions by 95%.

f. The group of all equipment, except compressors, within a process unit is an affected facility.

Addition or replacement of equipment for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

Equipment associated with a compressor station, dehydration unit, sweetening unit, underground storage vessel, field gas gathering system, or liquefied natural gas unit is covered by §§60.5400, 60.5401, 60.5402, 60.5421 and 60.5422 of this subpart if it is located at an onshore natural gas processing plant. Equipment not located at the onshore natural gas processing plant site is exempt from the provisions of §§60.5400, 60.5401, 60.5402, 60.5421 and 60.5422 of this subpart.

The equipment within a process unit of an affected facility located at onshore natural gas processing plants and described in paragraph (f) of this section are exempt from this subpart if they are subject to and controlled according to subparts VVa, GGG or GGGa of this part.

The Spencer Well Pad Station is not a natural gas processing plant. Therefore, Leak Detection and Repair (LDAR) requirements for onshore natural gas processing plants would not apply.

g. Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells.

Each sweetening unit that processes natural gas is an affected facility; and

Each sweetening unit that processes natural gas followed by a sulfur recovery unit is an affected facility.

Facilities that have a design capacity less than 2 long tons per day (LT/D) of hydrogen sulfide (H2S) in the acid gas (expressed as sulfur) are required to comply with recordkeeping and reporting requirements specified in §60.5423(c) but are not required to comply with §§60.5405 through 60.5407 and paragraphs 60.5410(g) and 60.5415(g) of this subpart.

Sweetening facilities producing acid gas that is completely reinjected into oil-or-gas-bearing geologic strata or that is otherwise not released to the atmosphere are not subject to §§60.5405 through 60.5407, 60.5410(g), 60.5415(g), and 60.5423 of this subpart.

There are no sweetening units at the Spencer Well Pad Station. Therefore, all requirements regarding sweetening units under 40 CFR 60 Subpart OOOO would not apply.

40 CFR 63 Subpart ZZZZ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

On June 1, 2013 the DAQ took delegation of the area source provisions of 40 CFR 63, Subpart ZZZZ. As the Spencer Well Pad is defined as an areas source of HAPs (see Table 12), the facility is subject to applicable requirements of Subpart ZZZZ.

Specifically, the new engine is an existing non-emergency 4 stroke rich burn spark ignition engine less than 500 hp. As such, the main requirements of Subpart ZZZZ are as follows:

a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;

b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and

c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

40 CFR 63 Subpart HH: National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities

On June 1, 2013 the DAQ took delegation of the area source provisions of 40 CFR 63, Subpart HH. Pursuant to §63.760(a)(3), as the Spencer Well Pad- an area source of HAPs- "process[es], upgrade[s], or store[s] natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user," it is defined as an area source subject to the applicable provisions under Subpart HH.

Pursuant to §63.760(b)(2), each TEG GDU located at an area source that meets the requirements under §63.760(a)(3) is defined as an affected facility under Subpart HH. The requirements for affected sources at area sources are given under §63.764(d). However, for a GDU, exemptions to these requirements are given under §63.764(e): if (1) "actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters [3 mmscf/day] per day" or (2) "actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram [1 TPY] per year."

As shown above, the maximum PTE of benzene emissions from the GDU is 0.05 TPY. Therefore, the GDU is exempt from the Subpart HH requirements given under §63.764(d).

Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 - (NON APPLICABILITY)

Pursuant to §60.110b, 40 CFR 60, Subpart Kb applies to “each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced

after July 23, 1984." The storage tanks located at the Spencer Well Pad are each 16,800 gallons, or about 64 m^3. Therefore, Subpart Kb does not apply to the storage tanks.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

This section provides an analysis for those regulated pollutants that may be emitted from the Spencer Well Pad and that are not classified as "criteria pollutants." Criteria pollutants are defined as Carbon Monoxide (CO), Lead (Pb), Oxides of Nitrogen (NO_x), Ozone, Particulate Matter (PM), Particulate Matter less than 10 microns (PM_{10}), Particulate Matter less than 2.5 microns ($PM_{2.5}$), and Sulfur Dioxide (SO_2). These pollutants have National Ambient Air Quality Standards (NAAQS) set for each that are designed to protect the public health and welfare. Other pollutants of concern, although designated as non-criteria and without national concentration standards, are regulated through various federal programs designed to limit their emissions and public exposure. These programs include federal source-specific Hazardous Air Pollutants (HAPs) standards promulgated under 40 CFR 61 (NESHAPS) and 40 CFR 63 (MACT). Any potential applicability to these programs were discussed above under REGULATORY APPLICABILITY.

The majority of non-criteria regulated pollutants fall under the definition of HAPs which, with some revision since, were 188 compounds identified under Section 112(b) of the Clean Air Act (CAA) as pollutants or groups of pollutants that EPA knows or suspects may cause cancer or other serious human health effects. Triad included the HAPs listed in the following table as emitted in substantive amounts (at least 0.01 lb/hr or 0.01 tpy) in their emissions estimate. The following table lists each HAP's carcinogenic risk (as based on analysis provided in the Integrated Risk Information System (IRIS)):

HAPs	Type	Known/Suspected Carcinogen	Classification
Benzene	VOC	Yes	Category A - Known Human Carcinogen
Formaldehyde	VOC	Yes	Category B1 - Probable Human Carcinogen

AIR QUALITY IMPACT ANALYSIS

Since this permit addresses the construction of a minor source as defined in 45CSR14, no modeling was performed.

MONITORING OF OPERATIONS

Triad will be required to perform the following monitoring and recordkeeping associated with this permit application:

1. Monitor and record quantity of natural gas consumed for the engine, and combustion sources.

2. Monitor opacity from all fuel burning units.

3. Monitor and record quantity of condensate produced by the BTEX Eliminator.

4. Monitor and report any malfunctions associated with the BTEX Eliminator.

5. Maintain records of the natural gas throughput to the glycol dehydration unit.

6. Monitor the tanks to ensure that all vapors are sent to vapor combustor when the flash gas compressor is not operating.

7. Monitor the condensate truck loading to ensure that vapor return/combustion is used.

8. Maintain records of testing conducted in accordance with the permit. Said records shall be maintained on-site or in a readily accessible off-site location.

9. Maintain the corresponding records specified by the on-going monitoring requirements of and testing requirements of the permit.

10. Maintain records of the visible emission opacity tests conducted per the permit.

11. Maintain a record of all potential to emit (PTE) HAP calculations for the entire facility. These records shall include the natural gas compressor engines and ancillary equipment.

12. The records shall be maintained on site or in a readily available off-site location maintained by Triad for a period of five (5) years.

CHANGES TO PERMIT R13-3035

1. Table 1.0 was changed to reflect the new/updated equipment.

2. Conditions 5.1.3 and 5.1.4 were changed to reflect the new engine.

3. Condition 5.1.5.d was changed to correct a typo.

4. Section 7.0 was completely replaced to reflect the fact that the new engine is not subject to 40 CFR 60 Subpart JJJJ but is subject to 40 CFR 63 Subpart ZZZZ.

5. Section 9.0 was changed to reflect the corrected numbers for the existing units. Additionally, new gas processing units 8S were added.

6. Section 10 was changed to add requirements for the vapor combuster. Additionally, requirements were added as needed for the applicant to claim a control efficiency of greater than 95% for the flash gas compressor.

RECOMMENDATION TO DIRECTOR

Information supplied in the application indicates that compliance with all applicable regulations will be achieved. Therefore it is the recommendation of the writer that permit R13-3035A for the modification of the Spencer Well Pad near, Middlebourne, Tyler County, be granted to Triad Hunter, LLC.

Steven R. Pursley, PE
Engineer

July 31, 2014